THE FARMER & GARDENER;

AND LIVE-STOCK BREEDER & MANAGER.

CONDUCTED BY I. IRVINE HITCHCOCK, AND ISSUED EVERY TUESDAY FROM THE AMERICAN FARMER ESTABLISHMENT, AT $5 PER ANNUM, IN ADVANCE.

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American Farmer Establishment.

BALTIMORE: TUESDAY, MARCH 3, 1835.

IMPROVEMENT OF THE SOIL.

☞ Every patriotic attempt to improve the condition of a country, must, to prove extensively useful, be connected with plans for the amelioration of the soil. No country can be long prosperous, can long be rich or powerful, whose *lands* are neglected, whose *soil* is not nourished and cherished with the most anxious, the most filial affection—the *dust of whose fields* is not watched and guarded with the most jealous attention.—What avails it to a state, that her government is free and pure, if her fields be unable to afford sustenance to her people? What avails it, that just and wholesome laws are enacted, if those laws bear rule alone over sterile deserts, over barren and unproductive fields? The sustenance of a people, their riches and their strength, must all be drawn from the soil: and when the sources of these fail—the power, pride, pomp, and glory of empires must wither away, and become as the dreams of the morning, that are remembered no more.

No sincere and enlightened patriot, therefore, can cast his eyes over the surface of his beloved country, without taking a lively interest in all that concerns the agricultural affairs of the people. If agriculture be neglected, a state must decline in wealth, must decline in power, and sink in political consequence in the scale of nations. But it is not alone the *present* prosperity of the agricultural interest that will engross the patriot's attention. His views will be *prospective*—he will look to means which may be taken, not only to preserve the soil in its original fertility, but to increase that fertility, and make the productive powers of the earth, keep pace with the increasing wants and necessities of an increasing people.—With what indignation must he view that selfish and short sighted *land-killing system*, which for the sake of present gain, *would destroy the soil*, and sap the foundations of the future greatness and prosperity of his country?

We wish it were possible that reflections such as these, could be made to sink deep in the hearts of our southern readers. We wish that they would seriously ask themselves, what must be the destiny of the southern states if the same *land-killing* system which has hitherto been pursued, be persisted in for fifty years longer? The question is pregnant with interest and demands a serious consideration.

SILK.—The advantageous production of this article as a domestic manufacture in the United States, was till recently considered chimerical by most people; and consequently the arguments adduced in its favor were generally disregarded.—Public sentiment, however, seems rapidly changing its course on this point, and a general solicitude on this subject, has succeeded former apathy. Our correspondence, both public and private, bears ample testimony to this fact, while it affords us the pleasing assurance that the time is not distant when the culture of silk will be generally adopted.—*Southern Planter.*

MARYLAND HORTICULTURAL SOCIETY,

Feb. 28, 1835.

At a regular meeting of the council, the following articles were exhibited, viz.

By Mr. Edward Kurtz—Camellias, Chandleri, Variegata, single white, double white, Flavescens, Florida, Grandiflora, Imbricata, Pœonia, Knightii, Dcantheflora, and Conchiflora.

By Mr. Zebulon Waters—Single white, double red, Carnea, Pœonia, Variegata, Coccinea, Helerophylla, and Atrosubens Camillias.

By Mr. Samuel Feast—Camillias Woodsii, Anemone white, do. red, single white, double white, Carnea, double red, and single red, Erica multiflora, Lachenalia tri-color, Primula Sinensis, do. Auricula six varieties, Acacia Linaris, &c.

At the meeting January 31, 1835, a package of Salonica tobacco seed was received by the hands of Lt. Long, of the U. S. Navy, from Wm. Benning Llewellyn, Esq., American Consul at Salonica, and the same handed to Gideon B. Smith, corresponding secretary, for distribution. The thanks of the society were voted to Mr. Llewellyn, and he was ordered to be nominated to the society as a corresponding member.

Office of the Maryland State Colonization Society,

Baltimore, Feb. 21st, 1835.

The Board of Managers of the Maryland State Colonization Society having determined to complete two expeditions to their Colony at Cape Palmas, during the present year—Notice is hereby given to the friends of Colonization that the first expedition will sail from this city in all the month of May ensuing, with not more than one hundred and fifty emigrants; the second will sail in all the month of October following, with a similar number.

All free persons of colour, residents of Maryland, who may wish to emigrate to the Colony, are requested to make early application to the Board of Managers, or to the Local Agent at this office, corner of Fayette and St. Paul's street.

As the Colony has been founded upon the principles of temperance and industry, it is hereby made known to all who may wish to become members and fellow-citizens of the Infant Republic of "Maryland in Liberia," that testimonials of character will be required by each and every applicant.

It is hoped and believed that there are thousands of the free coloured population of Maryland, who will regard this condition as one of the most conclusive evidences that could be offered of the society's benevolent intentions towards them.

The friends of colonization throughout the State, into whose hands this notice may fall, are respectfully requested to read it to such free persons of colour, as may be desirous to emigrate, residing in their neighbourhood.

The third Annual Report of the Society is now in a state of preparation for general circulation throughout the State. It contains most cheering intelligence from the Government of the Colony, especially in regard to the climate, soil and productions of the Territory.

WM. McKENNY, Col. Agent for Md.

THE FARMER.

[From the Genesee Farmer.]

On Draught.

(Continued from page 339.)

In farther pursuing our inquiries relative to the *application* of animal power, the *modus operandi*, or the manner of attaching the power to the weight, forms an important consideration. We have seen that the structure of the animal, his muscular power, speed and bottom, and the quality and degree of resistance, all have more or less influence upon the effect produced; and we shall now find that the mode of harnessing a horse and attaching him to his load, also has an influence upon his productive labor.

If we could always use our draught horses upon rail-ways, where the resistance is so slight, and its qualjty exactly what it should be, it would be a matter of little importance, in ordinary cases, how we connected them with their loads; but while we have to encounter every variety of resistance, up hill and down, over rough roads and smooth, it is important to avail ourselves of every circumstance, however trifling, which may increase our products without injury to our animals, or expense to ourselves.

In ancient times the harnessing a horse was a very simple matter. A strap around the neck, or a band around the girth, with a connecting rope or leather. was all that was thought necessary; and even in more modern times, every nation has a mode peculiar to itself, though all depend upon one and the same principle for effect.

But whatever may be our preferences, or however many our expedients to decorate our animals, or modify their labor, the effect they produce, will always depend in some measure upon the arrangement of the traces.

The angle of inclination, or in other words, the direction of the traces from the shoulder to the load, has been a topic of much discussion.—There are but three modes of directing the traces; horizontally from the shoulder to the load; an upward inclination from the same point; and a downward inclination. These have all had their advocates; but so far as I can judge. the *force of traction* is not altered in either case. If the trace inclines upward from the shoulder, then a portion of the animal's weight is borne by the trace, and of course communicated to the carriage; and if the trace is inclined downward, the effect is, that the horse lifts, as it were, a part of the load; while in both cases, the force of traction is the same as that exerted upon a horizontal trace. In the first case, the *effect* is increased by the *weight* of the animal; in the latter, by his muscular strength, or capability of sustaining weight. The advantage or disadvantage, then, of either of these modes of application must depend upon something else than mere *force of traction*.

But *there is*, nevertheless, advantages to be gained in the use of these several modes. It is evident, from the very construction of different horses, that their *capabilities* are essentially different, though their force of traction may be the same. One may be a small, muscular, nervous animal, exerting an average force of traction of 125lbs.; another, with large muscular legs, is perhaps calculated to sustain a great weight; while a third may possess an unwieldly bulk of flesh and bone, which of itself is a load, and yet neither of the latter horses be able to exert a greater force of traction than the former. In the first case, comparing one animal with the other, nothing would be gained by deviating the traces from a horizontal direction. In the second, an evident advantage would be gained by inclining the traces downward, for then the effect would be increased by putting a part of the load upon the horse, thereby leaving less weight to be operated upon by his force of traction. And in the last case, a corresponding advantage would be obtained by inclining the traces upward, so as to take the benefit of the animal's weight in addition to his strength.—Hence it is evident, that so far as the animal is concerned, the inclination of the traces ought to depend upon his *particular capability*, and not upon any general rule.

But, independent of the animal, there is another consideration which should influence the inclination of the traces. In the above cases, I have supposed the weight to be removed upon a smooth surface; but it is evident, where the road is rough and the resistance constantly varying, a great advantage may be gained by enabling the horse to lift a part of his load over the obstacles; which will be effected by inclining the traces downward, let the animal's capabilities be what they may.—On most of our roads, however, there is a constant variation from smooth to rough, from ascent to descent; and it will, therefore, be desirable for every man to fix upon that inclination which on the whole will best suit his circumstances; for it would be impossible to change the direction of the trace at every change of surface. Hence we find how much more effect wheel horses are enabled to produce upon our common roads, than leaders; for the latter can never apply their strength except in a horizontal direction; while the former exert the same force of traction, and at the same time increase the effect, by their nearness to the load, and relieving the weight. Hence, too, it is evident, that upon ordinary roads, the mode of harnessing horses one before another, as in our stage teams, is not the most efficacious mode of applying their powers. The plan adopted by the New-Jersey and Pennsylvania teamsters, of harnessing four horses abreast, and directly to the carriage, is doubtless the most efficient, if not the most convenient.

The common use of the gig, or dray cart, is another exemplification of this principle. The weight thrown upon the shaft, is the same thing as weight applied to the traces by a downward inclination; and it is well known to practical men, that most horses will carry the same load easier in this way, if correctly divided, than where the whole depends upon the animal's force of traction.

The fitting of the trace to the collar is another point worthy of remark. The structure of the horse, however, determines this matter almost wholly, and generally, in this country, it is judiciously applied. The connecting point between the collar and the trace, should be about two-thirds of the distance from the top of the collar to its lowest extremity, for there the collar bone is smallest, and the most muscle is presented to sustain the pressure. The old fashioned New-England mode of applying a connected trace around the breast, and sustained by a strap over the neck, was exceedingly irksome to the horse, as the whole strain passed directly over the joint of the collar bone, and thereby nearly paralized the operation of that joint.

In general, then, where the road is smooth and the gait slow, the traces should be as nearly horizontal as possible; unless where an extraordinary exertion is required, and then the traces should be a little inclined downward, so as to put a small part of the weight upon the horse. When the road is rough, and the gait also slow, the traces should be applied still lower down, so as to give the horse the greatest power over obstacles. But where great velocity is required, without much attending weight, the nearer the traces can be brought to horizontal the better, for then the horse is enabled to exert his force of traction without any counteracting influence.

In my next number, I shall proceed to consider, in part, the second branch of this subject, to wit, the *vehicles to be moved*, in connection with the *channels of conveyance*, but with especial reference to Canals and Canal boats.

QUERCUS.

[From the same.]

Gama Grass.

I believe no account has been published of any experiment in the culture of Gama Grass, made north of of the James river. A great degree of interest has been excited in regard to its merits; and as the plant has been found growing indigenously in Pennsylvania, and even as far north as Connecticut, the inference has been naturally drawn that it may be brought into successful cultivation elsewhere than in the Southern States.—Though my experience is by no mean extensive, yet as far as it goes I am encouraged to persevere; and I shall therefore make no apology for introducing the subject to public notice.

For a year or two past I have had the Gama Grass growing in my garden in various situations, from the richest soil to that of only tolerable fertility. I have discovered but little difference in the luxuriance of its growth under these different circumstances—a result which may be attributed to the number and strength of the roots, which penetrate deeply into the substratum, and draw nourishment from sources not readily accessible to less vigorous plants. From this disposition in the roots, it is reasonable to conclude, that the subsoil should be rather of a porous nature, the more readily to admit their entrance. Mine on the contrary is of a firm adhesive texture; and I am therefore induced to doubt whether the results of my experience were as favorable as they might have been in a different soil.

I find the grass to be rather tardy in putting forth its shoots in the spring. It is nearly the first of the 5th month (May) before it exhibits any signs of vegetation; but from that time it progresses with great rapidity. On the 4th of June I cut some which was about three feet high, although it stood close to some very thrifty trees, which abstracted almost all sustenance from every thing else within their influence. After cutting I observed its growth attentively for some time,

and found that the blades grew an inch and a half per day; so that in the course of another month the grass had nearly attained its full size again.—Having spread some seed stalks, I refrained from cutting it a second time until they had matured their seeds.

In a communication published a few months ago in the Farmers' Register, by Agricola, (the signature adopted by the gentleman who first brought the Gama Grass into notice) he mentions that with him the growth of the blades after cutting was precisely the same which I have stated it to be here. But his observations being made in a much more southern climate, where the spring is considerably earlier, and the autumn continues to a much later period, the *number* of his cuttings was greater than we have any reason to expect can be profitably realized in a higher latitude. I am of opinion that four times is quite as often as the grass can be cut to advantage above tide water in Virginia; and in New-York it might not exceed three. With this drawback, however, if there be any reliance upon the calculations which have been made relative to the product, the cultivation of Gama Grass must be regarded as an object of importance by farmers generally. I am well aware that calculations founded on a limited knowledge are extremely fallacious; still, after the many which have been made, and in one or two instances fully justified by the result, they are doubtless deserving of some attention. Not to be singular, I am willing to follow the example set by others, and venture upon one in this communication; in which, whatever of error may exist, it will, I am persuaded, be on the safe side.

I had several plants in a favorable situation that I reserved for seed, which where only subjected to a single cutting, made after the seeds were gathered. They stood close to each other, and were surrounded by vegetables usually cultivated in a garden. They were moreover *young* plants, being only in the second year of their growth. On the 18th September, they produced each seven pounds of green grass, which when perfectly cured and weighed a few days ago, yielded three pounds of hay. Now at two feet of distance each way, there will be ten thousand plants to an acre of ground. Admitting therefore that only one crop could be obtained during a season, here is a product of thirty thousand pounds of hay to a single acre. It may be objected that if the acre of land was fully occupied, the growth would be less luxuriant. But I am satisfied that each healthy plant would have attained the same size; inasmuch as those to which I have previously referred as growing in the vicinity of the trees, gave after two cuttings the same aggregate product.* In regard to the quality of the hay, it possesses a delightful fragrance, very much like that of corn blades; and was greedily eaten by horses. I think however the hay cannot be highly nutricious, *when the grass is frequently cut*; for in that case the blades are so succulent as to lose too much of their weight in drying.

* The same product when *dried*, but it was considerably more in the *green* state; a greater loss having been sustained by making the first cutting so early.

The propagation of the Gama Grass is effected either by seeds or offsets. There is some difficulty in getting the seed to germinate in consequence of the rigid husk which envelopes the kernel. They should be planted in autumn and thus subjected to the acti on of a winter's frost; or some artificial method be used to soften the husk or disengage the grain from its covering. It is stated by the editor of the Baltimore Farmer, that if the seed be steeped for a day or two, in a mixture of plaster of Paris and fourth proof spirit in such proportions as to make a liquid of the consistence of white wash, they will readily sprout. The vessel containing the mixture should be placed near a fire, to keep moderately warm. When one has only a few seeds, a more convenient way would be to remove the husk entirely, which may be readily done with a penknife, by carefully separating the two portions where they are attached to each other at the base of the seed. Previous to the operation it might be proper to soak the seed a short time in warm water, to make the husk yield more readily to the knife. When the removal is effected, there is no farther impediment to germination, which will take place as soon as in wheat or corn.

After being so fortunate as to rear a few plants, the best mode of increasing them is by offsets. A well grown plant of a year old may be divided into twenty or thirty, and sometimes more; pains being taken to have a root to every offset. They bear transplanting as well as lettuce or cabbage. It will be necessary to keep the young plants clean of weeds and grass during the first season, and the commencement of the next. If the grass should be flourishing, it will need but little more culture, and will increase in strength and luxuriance for several years. Two years ago I began with *four plants*, after leaving a few to bear seed and to give me some promise as to the size they would attain. Being seedlings and of a rather weakly growth, I only obtained thirty-six from them at that time; but last spring I divided them again into six or eight hundred.

Should any farmer be desirous of testing the merits of this Grass in the climate of New York, he may apply to the Editor of the Genesee Farmer for a few seeds, to whom I have sent a small number for distribution. T. S. P.

Beaverdam, Va., 1 mo. 10, 1835.

[From the Southern Planter.]

Of Tillage, and the principles on which it is founded.

Tillage has three objects:—1st, the raising of plants, whose seeds, stems or roots may be necessary or useful to man and the animals he employs,—2d, the improvement of the soil, by laying in open to those atmospheric influences which increase its fertility;—and 3d, its destruction of weeds, or plants which rise spontaneously, and are either altogether unfit, or fit only in a small degree, for the nutrition of men and cattle, and which, if left to themselves, would stifle or starve the intended crop.

In fulfilling either or all of these objects, it is evident that the surface of the earth must be broken and divided into small parts, so that in the first instance it may furnish a bed and covering for the seeds, enable them to push their roots into the soil, and draw from it a portion of their subsistence.

To accomplish this leading intention (the division of the soil) various *means* have been employed. Fossil, animal and vegetable manures, as well by their mechanical action, as by their chemical properties, promote it; as do sand, pounded limestone and water (as in the culture of rice;) but it is to the *spade* and *plough* we must look for that degree of efficiency without which the earth would have remained a desert, or would become one. Of these, where the scale of labor is small (as in *garden* culture) the former is to be preferred; but in farming, the greater expedition of the latter gives it a decided advantage. Our remarks, therefore, will be confined to the operations of this instrument, and particularly to such of these as have given occasion to differences in opinion among practical farmers.

1st. At what season of the year (spring, summer, or fall) is ploughing best performed, in relation to a division and improvement of the soil and the destruction of the weeds?

The more scientific opinion is in favour of *fall* ploughing; because to the action of the air and moisture, it adds that of *frost*, whose sceptic or dividing quality is second only to that of the plough itself. In clay soils, this preparation should never be omitted; because on those the action of frost is greatest, and because one ploughing of *this* kind may save two in the *spring*, when time is every thing.—In this operation, however, we must not forget to *ridge* as well as *plough*; and care must be taken that our furrows have sufficient declination to carry off surplus water.—With these precautions, your clay ground will be ready early in the spring for another ploughing; and decomposition of the sod and weeds (turned down in the fall) will be nearly, if not altogether, complete.*

In dry and warm soils, these advantages are less, but still the time gained for spring work is a sufficient inducement to a practice that economises, not merely our labor, but the productive powers of the earth also, by soonest enabling us to shade the soil with a growing crop.†

2d. What number of ploughings, preparatory to a crop, is necessary or proper?

The Romans were in the practice of multiplied ploughings. This appears, as well from the precepts of Cato, as from the opinion of Columella, that "tillage, which does not leave the earth in a state of dust and renders the use of harrows unnecessary, has not been well performed." Tull and his disciples, carry the doctrine still further, and believe that frequent ploughings enable us to dispense with even the use of manures. This, however, is extravagant; it is certain that the

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* Without water there is no *decomposition*, and much water checks and prevents it.

† Those who have any doubts about the importance of *shade*, have but to look at the effect of a brush heap, or other collection of small bodies, admitting air, heat and moisture, during the spring or summer months. Under such collections he will find a much more vigorous vegetation, than in the uncovered parts of the field; the cause of this effect is, that the brush prevents *evaporation*.

plough can do much, but it is equally certain that there is much it cannot do.

Agricultural, like other business, having profit for its object, is a subject of calculation; its labor must be regulated by its end, and the moment the expense of this transcends the profit, it may be *improvement*, but it ceases to be *farming*. When, therefore, we hear of *six* ploughings, preparatory to a wheat crop, we conclude, either that the plough will soon stop, or that it belongs to one of the Dilettanti, who thinks it below him to count the cost. In our practice, we find that spring crops (of the cereagramina) succeed best on one fall ploughing, well ridged and furrowed, and one cross ploughing in the spring; and the spring and summer crops, of the leguminous and cruciform families, form the best possible preparation for winter crops, and render unnecessary more than one additional ploughing. After all, any proper answer to this question must necessarily be qualified by considerations of soil, weather, season, crop and culture; influences which cannot but exist in all cases, and over which we have no control. Wheat, for instance, requires more *preparatory* ploughing than rye, and rye more than oats. Clay ground demands more tillage than calcareous earth, and calcareous earth more than sand; wet or dry weather makes frequent ploughings (according to circumstances) either useful, injurious or impracticable; and the shade of a horse hoed crop is, perhaps, in itself, of more importance to that which succeeds, than would be the fallowing of a whole summer.

3d. What depth of ploughing is most to be recommended.

This question, though less complicated than the last, requires, like it, an answer qualified by circumstances. *Tap rooted* plants require deeper tillage than others: *fall ploughings* may be deeper than those of *spring*, and *spring* than those of *summer*. If the vegetable soil be deep, deep ploughings will not injure it, but if it be shallow, such ploughings will bring up part of the *sub-soil*, which is always *infertile, until it receive new principles from the atmosphere*. "They who pretend," say Arthur Young, "that the underlayer of earth is as proper for vegetation as the upper, maintain a paradox, refuted both by reason and experience."

Where, however, it becomes part of your object to increase the depth of the surface soil, deep ploughing is indispensible; and in this, as in many other cases, we must submit to present inconvenience for the advantage of future benefit.—But even here, it is laid down as a rule, that *in proportion as you deepen your ploughings, you increase the necessity for manures.*

"From six to eight inches may be taken as the ordinary depth of sufficient ploughing." And,

4th. Of the different modes of ploughing [level or ridge ploughing] which is to be preferred?

This question admits no *absolute* answer. We have already suggested the use of the latter mode, in stiff, heavy, wet clays, and, in our opinion, all ground in which clay predominates, whatever be the culture, should be made to take this *form*; because it powerfully tends to drain the soil and carry off, from the roots of the growing plants, that superfluous water which, left to itself, would seriously affect both the quality and the quantity of their products. In sandy, porous, dry soils, on the other hand, *level* ploughing is to be preferred, because ridging such soils would but increase that want of cohesion, which is their natural defect.

A *loamy soil*, [which is a medium between these two extremes,] ought, in a dry climate, to be cultivated in the *flat* way, that it may the better retain moisture; and in a wet climate in *ridges*, that it may the sooner become dry.

THE BREEDER & MANAGER.

[From the Horticultural Register.]

A PARASITE OF THE HONEY BEE.

THOMAS G. FESSENDEN, Esq:—The late Gen. Martin Field, of Fayetteville, Vermont, who was distinguished for his enlarged and liberal mind, and his love of science, sent to Professor Silliman the enclosed important communication, which was published in the American Journal of Science and Arts, Vol. xxv. No. 1, for October, 1833, pages 113—14.

The discovery announced in this communication is so interesting to the bee-keeper and the naturalist that it deserves to be generally known; and, as there are some points in it upon which additional information is required, you will do me a favor by giving to it, with the remarks here added, a place in both your Horticultural and Agricultural Journals.

For a few years past, many of those people in this vicinity, who have apiaries, have found that in the months of April, May and June, an unusual mortality has prevailed among their bees. This circumstance has led to a thorough investigation of the cause, by those who have felt a particular interest in the products of this valuable insect; and the result has proved, that this mortality has been produced entirely by a parasite.

More than two years since, one of my neighbors suggested to me his conjectures that there was a parasitic fly that was injurious to the honey bee; since which time we have fully ascertained the fact. I have a box, now before me, containing a great number of dead bees, in which may be found the parasites, in both the pupa and the perfect state. Usually the bees become sickly and unable to fly, when the parasites are in the larva state; but they sometimes live till the perfect insect emerges from the pupa. The larva is fixed at the inosculations of the dorsal segments of the abdomen of the bee, and is hardly discoverable by the eye unless the abdomen be dissected. The larva is white, nearly two lines in length, and very much resembles a small worm or maggot. The pupa is nearly the size of the larva, and of a reddish brown color. The perfect insect is a nondescript, and bears very little resemblance to the *Stylops* or *Xenos*, or any other insect that has been found to be a parasite of the bee or wasp.—It is of the order Diptera of Linnæus, is little larger than the Hessian fly, but, in color and form, is very unlike that insect.

Mr. Kirby, many years since, discovered that the insect, *Stylops*, was a parasite in the black-bronze bee, *Andrena nigro-ænea*, in England, and Professor Peck afterwards found that the *Xenos* was a parasite in wasps, in America; but I am not aware that a parasite of the honey bee has ever been discovered till of late, and in this vicinity.

In conclusion, I would most sincerely request those who have apiaries, to examine their hives during the spring and summer months, and if this parasite be discovered, to investigate the history of the insect, and, if possible, to find a remedy for the injury it may produce.

MARTIN FIELD.

Fayetteville, Vt. May 15, 1833.

REMARKS.

The discovery of an intestine enemy in the bee, hitherto unknown and unsuspected, and its existence to such an extent as to cause an unusual mortality among these useful and industrious insects during their busiest season, were facts which on their first publication, strongly excited my curiosity; while the very brief description, which was given of the parasitic insect in its perfect or winged state, was not sufficient to enable me to make out the genus, or the rank which it held in a systematic arrangement. In answer to my inquiries on this subject and request for specimens, Mr. R. M. Field, the son of the above named gentleman, informed me that his father had sent the parasitic insects, twenty or thirty in number, to a lady, in order to have drawings made from them, and all of them were lost through carelessness.—This accident may account for the very imperfect description of the fly which was drawn up by Gen. Field. During the last summer Mr. Field obligingly sent to me some insects, which were given to him, by a person who, from some circumstances, was led to suppose that they were instrumental in producing the mortality among the bees. They proved, however, to be a kind of wild bee, (*andræna frugalis*,) at least half as large as the honey bee itself, and were furnished with *four* wings, in all which respects they differ essentially from the parasitic flies as described by General Field.

In order to avoid any mistake in searching into the history of the little parasitic enemies of the honey bee, it will be well to keep in mind the following facts derived from the information given by Gen. Field.

These insects infest the bees during the months of April, May and June, and they are found in three different forms.

At first they are *maggots*, of a white color, nearly one fifth of an inch long, and live between the joints of the back of the bees.

Second. After a time they cease eating, their bodies shorten, and their skins become of a brownish color. They are now entirely quiet, and are in, what may be called, a state of transition (*pupa*) intermediate between maggots and flies.

Third. At length the insects burst the brownish skins which cover them, and come forth in the form of little *two-winged flies*, rather larger than the Hessian fly, probably about the size of a musquito. They are then, like all other winged insects, in a state of maturity, and, consequently, in a condition to lay their eggs.

To complete the history of these little parasites, information is wanted upon a number of points, which, it is hoped, will receive the atten-

tion of persons who have the leisure and opportunity to make the necessary investigations.

If, during the proper season, a considerable number of sick, dying, and dead bees are procured and confined under tumblers, (those of them which are still alive being daily fed with a drop or two of sugar, syrup or honey,) the little parasitic insects, with which they are infested, may be observed during their changes of form, and will probably, in due time, be found flying about beneath the tumblers.

Bee-keepers, and especially those who reside in that part of the country where these insects have been discovered, are most earnestly requested to endeavor to ascertain, 1st. When, how, and where do the flies lay their eggs; 2d. How long do their young remain in the maggot state; 3d. How long are they in what is called the *pupa* state, or state of transition. When, in addition to these facts, the means are furnished for drawing up a full, correct, scientific description of the insects in their last or winged state, their history will be nearly completed, and the way to successful experiment against their insidious attacks will be fairly opened.

The writer of these remarks at one time thought of offering a reward to any person who would apprehend a gang of these marauders, lodge them in the office of the New England Farmer in Boston, and furnish such evidence of their identity as would enable him to try them by the laws of science, and pronounce judgment upon them in their true characters. But, as he is not more interested in the subject than many other persons, he feels that he has discharged his duty in respectfully and urgently recommending the measure, and offering, whenever they are wanted for the purposes above named, the services of

T. W. Harris.

Cambridge, Mass. Jan. 9, 1835.

MANAGEMENT OF BEES.

The Kennebec (Maine) Agricultural Society, at their meeting last autumn, awarded their premium on Bees to Col. John Gilmore, who furnished the Society with the following statement:

"Having entered my name for premium on honey and an hive of bees, I will inform you how I have managed them for a few years past. I keep them in boxes—my boxes are 13 inches square on the outside, and from six to seven inches high, with thin slats across the top about an inch wide, with just space enough to let the bees pass between them. For a young swarm I fasten two boxes together with a board on the top, put in the swarm, and when I set them on the bench, put under as many more as I think they will fill—a large early swarm will fill four or more. I had some this season that filled three in about a fortnight, and then swarmed, and the young swarms have filled four boxes. After my old hives have swarmed once I usually put under one or more boxes. I prefer that course to letting them swarm again, for second swarms are generally worthless. When the weather becomes cool, if the hive is well filled with honey, the bees will all leave the upper box,—it can then be taken off without disturbing the bees in the hive. I usually take from my old hives and early swarms one box containing from 20 to 24 lbs. and leave enough for the bees to live on through the winter, or I can take a part and return the box if I think the remainder is insufficient for them. If my bees grow lazy after the swarming season is over, and hang out on the hive, which is in consequence of the hive being full, I add more boxes. I had a few small swarms which I have taken up otherwise. I have not destroyed any bees. I have taken up on my own farm this season 289 lbs. of good honey in the comb, and I now own, including those that I have taken up, twenty-six hives."

TICKS ON SHEEP.

It is now the time of the year for these troublesome vermin to increase and torment sheep, particularly if they should not be in so good order as a flock ought to be. It will be well to look to them, and give them leave of absence. The best method which suggests itself at present is the smoke pipe; by which as you undoubtedly know, is meant a tube with a bulge or enlarged space in the middle, into which is put some dry tobacco, on this a small coal of fire is placed, and the whole is screwed down to the nose of a bellows, and the smoke thus driven into the wool of the sheep, to the no small annoyance and death of the tick who is thus trespassing on the pelt and comfort of poor *Nanny*.

By the way, a word or two upon the construction of this pipe—many have them made with a screw upon the pipe of the bellows—this makes it necessary either to have a bellows made on purpose—or a new screw cut on every pair of new bellows—but a wooden or tin pipe put upon the pipe containing the tobacco and the smoke blown out by the mouth will do good execution.

Snuff sprinkled on the back of the sheep, and in among the wool in different parts will also be of good service if you have not a smoke apparatus at hand.—*Maine Farmer.*

Horses and Crows.—The corresponding Secretary of an Agricultural Society, in Maine, in making his report to the legislature of the doings of the Society for 1834, has the following observations concerning the quality of horses in his county.

In the breeding of horses, nothing worthy of particular notice has been done of late. Indeed, although there are some good horses here, it may be said, (the opinion of some to the contrary notwithstanding,) that there is not that sort of attention paid to our breed of horses that the importance of the business demands. It is true, that as at present carried on, the breeding of horses is not so profitable as some other branches of husbandry; and for this reason, there ought to be the more strict and careful attention paid to what are raised. It is to be regretted that no regular system—no definite mode of procedure is pursued in regard to this business—a business which demands so much time and capital. The mode at present adopted, (it cannot be called a system,) is, that every mare that cannot be sold, shall be made to breed, and the *cheapest* horse receives the most custom. No wonder that our law givers are called upon to devise ways and means to destroy the *crows*, when our farmers pursue a course which provides so bountifully for the increase and sustenance of these *omenous birds.*

THE GARDENER.

THE MORUS MULTICAULIS.

The Morus multicaulis, or Chinese Mulberry, many persons believe, cannot be propagated from the seed brought into this country. There are difficulties, it is true, attending it, but they are far from being insurmountable. The Chinese devise every method to destroy their vitality before they allow foreigners to purchase them, and it was not until after repeated trials, that a gentleman in this town was able to obtain a quantity of the genuine seed, through the aid of an American Missionary at Canton. This seed has been generously distributed here, and the experiments of last summer have fully satisfied us, that the leaves are as large and the plant as vigorous and thrifty in its growth, as when propagated by cuttings or layers from the Chinese Mulberry.

We notice in the Horticultural journals, a statement that the French Society of Agriculture have decided that the Chinese Mulberry is not a distinct species, and that the seed will not produce its own kind. Farther, this learned body have decided, that the real Morus multicaulis cannot be propagated *except* by cuttings and layers. Some seed sown in Italy and France have produced other varieties of the Mulberry. This may be the true state of the case in Europe, but it is believed such experience has no application to this country.—Our soil or climate, it is to be hoped, will produce from the seed the real plant, and if it should have varieties, and those varieties equal or excel those produced from the cuttings, then so much in advance of other experiments is gained. We presume those who propagate the Chinese Mulberry as a traffic will feel offended at the introduction of the genuine seed into this country. The cuttings, thousands of them have been sold at fifty cents each, but through the perseverance of one of our horticulturists, seed enough for that sum can now be obtained for more than a thousand of the genuine plants.

We have had opportunity, during the past year, to examine with some attention, the cultivation of the Chinese Mulberry, both from cuttings and layers, and also from the seed. We have been able to perceive no difference in the size and appearance of the leaves of the plant, making adequate allowance for the advantage a layer or cutting has over the seed while undergoing the process of germination. Some seed sown late in the season, produced leaves measuring nine and a half by eight and a half inches, and had they had the advantage of early planting, their size would have been much increased. Even as it was, they exceeded often the size of the full grown leaves of the genuine Morus multicaulis. We may believe that another season in this vicinity will put all cavilling at rest, whether the plant is superior from the seed or equal only to the cuttings. The business here will be prosecuted on an extensive scale.—*Northampton Cou.*

Rhubarb.—This is one of the many plants which a farmer may have in his garden, and which may be made to contribute to the delicacies of his table, and to the health and comfort of his family, with very little expense or labor. The plant is

perennial, and resembles much in its habits the burdock, though the leaves and their stalks may be somewhat larger, in a good soil. A dozen plants will serve to supply a family. The leaf stocks are the parts used. The skin or cuticle is pealed off—they are then cut into quarter or half inch pieces, and used without further preparation, with sugar and spices, like unripe gooseberries, for pies and tarts, which fruit it very much resembles in flavor. It may be used in the spring, and till midsummer. Medical men ascribe to it a salutary influence upon health, particularly to children, when used in this way. The seed ripens about midsummer, at which time it may be sown.—*Cultivator.*

[From the Knickerbocker.]

CONVERSATION ON VEGETABLE PHYSIOLOGY.

Stones have been known to move, the trees to speak.
MACBETH.

Reader,—Think not that the subjoined Essay is a piracy, either in matter or style, from the celebrated Conversation on Chemistry, etc.—It is but the following up of a good custom,—for my memory runneth not to the contrary,—of "Mrs. B." and "Emily;" and I would wish to have vegetables, as well as animals, speaking for themselves. Mrs. B. and Emily speak volumes in favor of this plan of diffusing knowledge, and they are naturally philosophic enough to excuse my treading on their heels, while I am paying them the compliment of following in their footsteps. The judicious *may* grieve, but the barren *will* smile, and that is long odds enough to induce me to start, although the production be but a trifle. Should it have a good run, it will signify that the public are pleased—and it is for the public I write.

"My *Eyes*!" said the Potatoe to the Lemon, "how bilious you look to-day. Your skin is as yellow as saffron. What can be the matter?"

Lemon. Acidity of stomach,—a family complaint of ours.

Potatoe. Why don't you take advice?

Lemon. Advice! You know that my poor brother *dropped* off the other day, and without being allowed to rest on his mother earth, his body was snatched up by a member of the Bar, who, instead of acting legally, dissected him—absolutely *cut him up.* "All for the public good," said the rascal, as he squeezed out poor Lem's last gastric juices. Take advice, quotha! If he was not allowed to enter a plea in Bar, what may I expect from Doctor Commons?

Potatoe. That's true. I only hope poor Lem, though he was in *liquor* at the time, had strength enough to give him a *punch* under the ribs: he was a *rum* customer to the last, no doubt,—but I must say I wish his skin had been Fuller. Do you attend the meeting to-night?

Lemon. I feel rather *soured* at present. I met Running-Vine just now with the invitations, and he hinted that there would be a *squeeze*, in which case I should *decline*, as they might *press* me to furnish drink for the company;—in fact, it is always so when they call any of my family to their *aid*.—But now, to be serious, my sweet, *sweet* Potatoe, if you should go, let me advise you not to get yourself into *hot* water; you'll be *dished* to a certainty if you do. Onion, the *strongest* friend you have on earth, brought tears to my eyes, by the bare recital of what would be the probable consequences of your attending it. In case of a row, you'll both have to strip—*peel* off. Now under such circumstances, he'll certainly excite some sort of sympathy; whereas the removal of your *russet coat* might attract more admiration than pity: "lovely in death," would they say,—"*Pallida mors*," etc. Indeed for my own part, I think you do look better *in white*. Oh! another thing I would say: keep out of Horse Radish's company; he will be sure to get you into a *scrape*—a *greater* one than he imagines, perhaps—and as for Onion, (don't let this *leak* out,) I fear the *rope* will end him. I should not like to get into a *stew* with him,—so, mum! Ah! here come Plum and Pear. How savage they look.

Pear. How are you, my dear Lemon? Do decide this question between Plum and me. On referring to Johnson, we find my numerical value estimated at two only, while the rascally Plum is set down for a hundred thousand. Its too absurd: there must be some mistake.

Plum. None at all. Please to recollect, Sir, that I weigh a *stone* more than you.

Pear. From that I must beg leave to *secede*.

Lemon. Stop this *fruitless* wrangling, or I shall be tempted to *skin* you both, to get at the truth. I'm not in *spirits*. As for you, Mr. Plum, no more of your *tart* remarks; and Mr. Pear, if you wish to be *preserved*, the less *jarring* the better. Here comes our good friend Raspberry. How do you do, my fine fellow, and how have you been?

Raspberry. In the most infernal *jam* you ever saw:—'pon honor, 'twas insupportable. What's the news?

Lemon. There is a report which *Bush* has raised, quite *currant* here, that he served you up in sweet style last evening at tea table, before a party of ladies, and the cream of the joke is that you were considerably *down in the mouth*.

Raspberry. Mere envy. You know he cultivates the affections of Miss Rose Geranium, (a sweet creature, by the bye, and has grown very much lately,) but finding that she preferred me, he became saucy, which induced me to beat him into a *jelly*, and send him in that state to his friend Venison, who lives near Fulton Market.

Lemon. (*Puts his hands on his lips and haw haws.*) Bravo! What a funny limb of Satan you are. But Ras, have you seen old Gardener lately? He'll give you a deuced *trimming* when he meets you. He says you ought to have done sowing your wild oats, and that although it goes against his grain to complain of your treading on his corns, he can't stand it any longer, and must peach.

Raspberry. Peach, will he? And are these to be the *fruits* of my bearing with him so long? He has been *picking* at me for some time, and yet it was but yesterday, the ungrateful old *rake*, that I got him out of a scrape with Mr. Horse Radish, who, after seizing him by the *nose*, threw a musk-mellon at his head, exclaiming with an equestrian laugh, "That ought to make at least one *mango*." And go he did, that's certain, all to squash.

Lemon. A challenge will ensue, doubtless.

Raspberry. By no means. No one knows better than Gardener that Horse Radish *shoots like the devil in the spring*, and one *fall* he has already received from him: It would be unreasonable to———but drop this subject, for here comes Mrs. Tree, who seems to wear a very cypressy look.

Mrs. Tree. Good morning, gentlemen. You have heard, no doubt, that I have lost those young *limbs* of mine. Well, perhaps its for the best: offsprings are a great trouble and expense, and to speak the truth, I should pine more at the loss of my *trunk*. Fine growing weather, this: Adieu!

Pear. Pine *more!* I should say she is one of the pine *knots*. There is very little of the weeping willow about her.

Lemon. No, the stingy old creature! No doubt she'd have been *cut down* by the loss of her *trunk*,—she'd have been *chop*fallen then: instead of pining, she talks sprucer than ever. I don't believe she ever went to the expense of having these poor little things *inoculated*; and a very little *matter* would have given them *succour*. She said the other day she was trying *bark* on them: but I vow, here comes Aspen. Aspen, why so agitated? Is there any thing strange in the wind?

Aspen Tree. I'm in such a *flutter*, that I can scarce tell you of our common danger. But in a word, whether it was on account of our extreme admiration for the wood of the forest, or that the chesnuts and the oaks began to *rail* at him, and give offence, it has entered the *head* of Hickory—which is very high just now—to root out, and remove my trembling deposites from the *bank* on which I was reared by the side of the Schuylkill. Supplication is useless. Old Hickory will n *bend*, tho' we tell him of our *breaking*,—and I advise all of you, who, like me, have *branches*, to *cut and run*.

Lemon. My skin stands a double chance to be saved—for if I *cut* I shall surely *run*. But are you serious?

Aspen Tree. Serious! I tell you the sooner you all cut stick, the better. *Hickory runs* wonderfully. I'm off.

Lemon. Gentlemen, are you ready for the question? All in favor of *taking our leaves*, will please bow.

[They bow unanimously, and exeuent as fast as their *limbs* can carry them.]

SEED WHEAT.—Extract from a letter:—"To obtain good seed wheat, my father has for several years used a very coarse screen in his fanning mill, which retains only the largest and best kernels. By this means, all the foul stuff passes off, and his seed is perfectly clean. The additional expense of an extra screen is but a trifle."—*Gen. Far.*

STRAW, if not wanted as fodder, should by no means be wasted, as it has many uses, and particularly as a manure; and one of the best modes of applying it as such, is to spread a thin layer of it over wheatfields, as it thus prevents in a great degree the freezing and heaving of the young plant, which are therefore less liable to be winter killed; and by the time the wheat is cut, it is sufficiently rotted to be plouged under with ease.—*ib.*

MISCELLANEOUS.

Twelve Reasons

Why GEOLOGY should be introduced into common schools as a branch of study—taken from "Scientific Tracts" published in Boston.

1. It is nearly allied to geography. The connexion and distinct provinces of these two sciences, have already been pointed out in the introductory remarks of this number. From that view it is believed, many will be ready to acknowledge that the claims of this science to becoming a subject of common school instruction, are equally strong with those of geography, and in some points superior.

2. It is an interesting science. It opens to our view a new world, and presents us with numerous objects of beauty and of interest, before unnoticed. The most barren ledges, the commonest rocks and walls by the wayside, destitute of any thing to admire or notice, show to groups of young explorers, that these have not merited the long neglect they have suffered; but they contain much that is rich and beautiful, not merely when arranged on the shelves and cases of a cabinet, but when placed on the mantel piece of the parlor or drawing-room, and furnishing instruction and delight to the most elevated minds.

3. It is among the grandest of sciences. It leads us to view, with increased admiration, the towering mountain and awful precipice, and induces and enables us to examine with greater ardor and more exalted delight, those features of the earth, which never fail to excite ideas of sublimity even in the rudest mind. We learn from it, that amid the lofty aspect, the terrific grandeur, and the wild confusion of the Alps and Andes, there is order and regularity, which evince the skill of a wise and all powerful architect. Arrangements amidst apparent disorder, a vast storehouse of riches overhung by forms of terror, objects of the highest beauty grouped beneath the awfully sublime, afford to the passing geologist a moral as well as an intellectual banquet.

4. It gives new interest and increased utility to our journeys and our walks. A person, with the slightest knowledge of geology, never passes from one country or place to another, without finding much to admire, and much to increase his store of knowledge. If he find no thriving village, no field covered with the fruits of the farmer's industry, no fertile tract groaning under its load of stately forest trees, or smiling beneath its dress of beautiful verdure, he still finds, in the barren plain or the broken ledge, much that is beautiful, rich and instructive.

5. It furnishes a healthful and instructive amusement to the young. Wherever it has been introduced into schools, the pupils have taken more or less of their pastime in examining and collecting specimens of minerals within their reach. A geological excursion is uniformly preferred by them to their ordinary sports, too often calculated to dissipate their minds, and unfit them for patient and successful application, when they return to their school-rooms or their books.

6. It teaches children to be observing. A thousand objects, before unnoticed, press upon their view; their imagination and taste are awakened, and called into vigorous and healthful exercise, in discriminating the aspect of objects.—Their minds, once put upon the search to discover what is beautiful and rich in the mineral kingdom, are led to examine other parts of this wide creation; and wherever they go, or whatever they see, they find something to admire, and to convey to their minds entertainment and instruction.

7. It leads to useful discoveries. Wherever the science of geology has been introduced into schools, or to the attention of other young people, valuable discoveries have been made to enrich the treasure of science, or to furnish new sources of industry and of wealth, both to individuals and the nation. If once introduced into all our schools, the whole country would be put under the most minute and rigid examination, and compelled to yield up its treasures, now buried beneath the surface of the earth. In New-England, alone, from one to two hundred thousand young, but ardent and efficient surveyors, might be induced to afford their gratuitous and cheerful services, to explore our resources in the mineral kingdom; and while they amused and instructed themselves, they would make important accessions to the public treasures of science and of wealth.

8. As the adoption of geology as a branch of common education, uniformly leads to a thorough examination of the natural features of the country, it would prepare the way for obtaining maps of all the towns where it should be introduced.—Considering the trifling expense at which lithographic prints of town maps can be procured, and the important vehicles they would be to convey a minute and accurate knowledge of the character and resources of our country to the minds of its inhabitants, few subjects better deserve the immediate attention of every town.

9. No science is more practical. It acquaints farmers with the nature of their soils, and the best methods of improving them; civil engineers with the materials for constructing roads, canals, railways, wharves, dams, &c., and the proper method of combining them; artists with the origin and nature of paints, and other substances in common use; and the miner when and how to extend his researches, pointing him to a reward for his labors, and guarding him against abortive attempts.

Agriculture, internal improvements, manufactures, and the various useful arts, occupy, at present, so large a place in public attention, as to render every method which can be adopted to advance them worthy of public and private patronage.

10. The introduction of geology into schools, would tend to promote moral improvement among the young. Perhaps there are not two more unfortunate circumstances attending our system of popular education, than that the exercises of children in the school-room are irksome, and those for recreation are dissipating to the mind. If school-houses could be rendered places of pleasant resort, and amusement sources of useful instruction, the great work of reform in cultivating intellectual and moral taste would be fairly begun. The more innocent and useful amusements are scattered around the young, the less time and disposition they will have to pursue those which are pernicious or useless. No subject, perhaps, is better fitted to answer the double purpose of amusement and instruction, than geology. And few are better fitted to show the power and wisdom of Him, "who weighed the mountains in scales, and the hills in a balance."

11. It is easily acquired. The features of this science are not only striking and grand, but they are few and simple, and exactly fitted to entertain and expand the juvenile mind. By the aid of specimens, with appropriate descriptions, its general principles are more easily and readily understood, than those of any other science which is taught. Nothing is more easy than to introduce it into every district and private school in the country, and to acquaint every child with the names, ingredients and uses of the rocks he daily observes in his walks, and with the prominent geological features of our country.

12. It is neccessary. Without it, gazetteers and journals of travels cannot be understood. In some places, a knowledge of the great geological features of the earth is as common and familiar, as of the continents and oceans; and consequently, without this knowledge, a person is liable to find himself ignorant of the most common and familiar topics of conversation, in the society he will frequently meet. To be destitute of a branch of science so important and accessible, is to be unprovided with a great source of mental occupation and entertainment for early life; and in the case of teachers, the want of it is the want of a powerful and happy means of influencing the youthful mind.

If it should be asked how this science can be most readily introdnced into schools, it is answered, from numerous experiments, that fifty or a hundred labelled specimens, with some small manual to describe them, explaining their ingredients, uses, &c., are sufficient to make a beginning, which, if once made, seldom, if ever, fails to be extended to a general knowledge of the subject.

Wonders of Chemistry.—Aquafortis and the air which we breathe are made of the same materials. Linen, and sugar, and spirits of wine, are so much alike in their chemical composition, that an old shirt can be converted into its own weight in sugar, and the sugar into spirits of wine. Water is made of two substances, one of which is the cause of almost all combustion or burning, and the other will burn with more rapidity than almost any thing in nature. The famous Peruvian bark, so much used to strengthen stomachs, and the poisonous principle of opium are formed of the same materials.—*N. E. Farmer.*

The prudent practice of insuring lives is spreading rapidly, for in 1831 a Company had insured thirty-seven lives; in 1832, fifty three; in 1833, one hundred and eighty three; and in 1834, five hundred and four.

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BALTIMORE PRODUCE MARKET.

☞ *These Prices are carefully corrected every* MONDAY.

	PER.	FROM	TO
BEANS, white field,	bushel.	2 00	2 50
CATTLE, on the hoof,	100lbs.	5 50	6 50
Slaughtered,	"	3 00	4 00
CORN, yellow,	bushel.	63	64
White,	"	60	— —
COTTON, Virginia,	pound.	16	17½
North Carolina,	"	—	—
Upland,	"	—	18½
FEATHERS,	pound.	35	37
FLAXSEED,	bushel.	1 50	—
FLOUR—Best white wheat family,	barrel.	6 00	1 75
Do. do. baker's	"	5 50	6 00
Do. do. Superfine,	"	4 75	5 00
Super Howard street,	"	—	4 75
" " wagon price,	"	—	4 62
City Mills, extra,	"	—	5 12½
Do.	"	—	4 87
Susquehanna,	"	—	—
Rye,	"	—	—
GRASS SEEDS, red Clover,	bushel.	4 75	5 25
Timothy (herds of the north)	"	2 50	3 50
Orchard,	"	3 00	—
Tall meadow Oat,	"	2 00	2 50
Herds, or red top,	"	1 25	—
HAY, in bulk,	ton.	— —	—
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	5 75	6 50
Slaughtered,	"	—	—
HOPS—first sort,	pound.	15	—
second,	"	13	—
refuse,	"	11	—
LIME,	bushel.	30	33
MUSTARD SEED, Domestic,	"	5 00	6 00
OATS,	"	30	33
PEAS, red eye,	bushel.	—	—
Black eye,	"	87	1 00
Lady,	"	100	—
PLASTER PARIS, in the stone,	ton.	3 00	—
Ground,	barrel.	1 37	—
PALMA CHRISTA BEAN,	bushel.	1 50	1 56
RAGS,	pound.	3	4
RYE,	bushel.	—	—
TOBACCO, crop, common,	100 lbs	4 25	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable for segars,	"	6 00	12 00
" yellow and red,	"	8 00	12 00
" yellow,	"	9 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	4 00	5 00
" ground leaf,	"	5 00	9 00
Virginia,	"	5 00	10 00
Rappahannock,	"	—	—
Kentucky,	"	6 00	9 00
WHEAT, white,	bushel.	1 05	1 10
Red,	"	1 00	1 02
WHISKEY, 1st pf. in bbls	gallon.	28½	29½
" in hhds	"	28	—
" wagon price,	"	24½	25
WAGON FREIGHTS, to Pittsburgh,	100 lbs	— —	1 75
To Wheeling,	"	—	2 00
		washed.	*unwash*
WOOL, Prime & Saxon Fleeces,	pound.	50 *to* 60	24 *to* 26
Full Merino,	"	44 50	22 24
Three fourths Merino,	"	37 44	22 24
One half do	"	33 37	22 24
Common & one fourth Meri.	"	30 33	20 22
Pulled,	"	31 33	22 24

BENE SEED.

JUST RECEIVED at this Establishment, and for sale, by the pound or in 12½ cent papers, a small quantity of the seed of this most valuable plant. It is very efficacious in the Bowel Complaints of children, and not difficult to be administered. The seed should be planted in April, in hills like beans, and the leaves will be in perfection in June. Two or three leaves being put into a tumbler of spring water, for 10 or 15 minutes, convert it into a mucilage, which being tasteless, children readily drink.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	$3 00	$5 00
BACON, hams, new,	pound.	11	— —
Shoulders,	"	8	9
Middlings,	"	—	—
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,	"	15	25
CIDER,	barrel.	—	—
CALVES, three to six weeks old	each.	3 00	6 00
COWS, new milch,	"	17 00	30 00
Dry,	"	6 00	10 00
CORN MEAL, for family use,	100lbs.	1 50	—
CHOP RYE,	"	1 50	—
EGGS,	dozen.	19	20
FISH, Shad, salted,	barrel.	5 75	6 00
Herrings, salted, No. 1,	"	4 75	— —
Mackerel, No. 1, 2 & 3,	"	5 12	7 00
Cod, salted,	cwt.	2 50	3 00
LAMBS, alive,	each.	1 25	2 00
Slaughtered,	quart'r	31	50
LARD,	pound.	8	9
ONIONS,	bushel.	62	75
POULTRY, Fowls,	dozen.	1 50	2 25
Ducks,	"	—	2 50
POTATOES, Irish,	bushel.	40	62
Sweet,	"	—	—
TURNIPS,	"	37	50
VEAL, fore quarters,	pound.	3½	4
Hind do.	"	6½	—

ADVERTISEMENTS

WILLIAM PRINCE & SONS,

PROPRIETORS of the Linnæan Botanic Garden and Nurseries, announce the following Catalogues, with greatly reduced prices. Catalogues, which are distributed gratis on application, post paid.

No. 1. Fruit and Hardy Ornamental TREES, SHRUBS and PLANTS, pp. 90.
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Large red, and large yellow Antwerp, large red Barnet, Taylor's Paragon, and Beehive RASPBERRIES, at $16 per hundred, or $2 1-2 per dozen.

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Largest Lancashire GOOSEBERRIES, comprising all the choicest varieties and colors, $20 per hundred or $3 per dozen.

Double Dahlias, each distinct by name, selected by us, at $3, 4 1-2 and 6 per dozen.

☞ Orders sent direct per mail, will be executed with pointed attention, and shipped or forwarded precisely as directed. feb 24—3t

CLOVER SEED AND SEED OATS.

350 bush. Clover Seed
2500 do Seed Oats, for sale in lots to suit purchasers, by
LUTHER J. COX,
feb 17 4t Corner Calvert and Pratt st.

FRESH GARDEN SEED.

THE Subscriber has just received by the ship Canada a splendid assortment of English and Dutch Garden and Field Seeds. The respectability of the gentleman by whom these seeds were raised warrants me in recommending them with perfect confidence. But to be certain of the quality and to prevent disappointment to purchasers, proof samples of each sort are taken and will be fully tested in hotbeds prepared for the purpose.

The most prominent received are—

600 lbs. Cabbage Seed, principally of Early Scotch York, Large York, Bullock's Heart, Early George, Sugar Loaf, Drum Head and Flat Dutch. The above named Early York is the dwarf or short stalk variety raised by one of the first Gardeners near Edinburgh.

500 lbs. Mason's short top scarlet, red, and white Turnip, long white and salmon Radish Seed.

50 lbs. Salsafy or Vegetable Oyster.

8 bushels broad Windsor, long pod, and other English Beans.

10 lbs. Early and Late Cauliflower Seed, raised from the large Dutch Cauliflower. The quality of this seed may be estimated by reference to the Cauliflowers, whose merits received the premium from the Horticultural Society last year.

10 lbs. Brocoli Seed, finest English sorts.

100 bushels Early and Marrowfat Peas, among which are Bishop's early Dwarf, Spanish Dwarf Fan and Knight's Dwarf, Honey, all fine new sorts, very prolific and growing, only 12 inches high.

375 lbs. Early Dutch Turnips, white Tankard, Yellow Bullock, White Globe and Dale's new Hybred Turnip Seed.

15 lbs. Borecole or Kale Seed of various sorts.

FIELD SEEDS.

30 bushels St. Foin or Espersett and Field Burnett; Spring Vitches or Tares; 100 lbs. Mangold Wurzell; 10 bushels early Potatoes; 5 best English sorts, 10 bushels English Lawn Grass; 200 lbs. Mustard Seed; 15 bushels Perennial Ray Grass; 300 lbs. Rape or Cole Seed; 20 bushels English Oats; 3 best sorts; 300 lbs. white Dutch Clover; 360 lbs. Lucerne; also a small parcel of Yellow and Scarlet Trefoil, &c.

IN STORE.

Parsnip Seed, Carrot, Lettuce, Beet, Cress, Cucumber, Cantaloups, Onion, Squash, Corn Salad, Artichoke, Swiss Chard, Celery, &c. Nearly all the last named Seeds were raised by R. S. Senr. at the Clairmont Nursery, and are of the finest quality.

Orders for Fruit Trees, Shrubs and Plants received. For particulars, see catalogues; to be had gratis.

ROBERT SINCLAIR, Jr.
At Sinclair & Moore's Maryland Agricultural
March 3. Repository, Light near Pratt street.

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COMPRISING a Stock and Experimental Farm; a Nursery and Seed and Flower Garden; a Store for the sale of Field and Garden Seeds and Agricultural Implements and Books; a general Agricultural and Horticultural Agency; the Publication Office of the "Farmer & Gardener, and Live Stock Breeder & Manager," and of "Hints to Farmers;" and an Office of APPLICATION for Farmers, Gardeners, Overseers, Managers, &c.

I. IRVINE HITCHCOCK, *Proprietor.*

This establishment is now in full and successful operation, nearly every department, especially that of seeds, being well supplied with articles of the most desirable quality.

Orders by wholesale or retail will be promptly executed on terms that cannot fail to give entire satisfaction to purchasers.

As the limits of an ordinary advertisement preclude the possibility of conveying an adequate idea of the variety and the value to the cultivator and dealer in seeds, of the contents of this establishment, a comprehensive and descriptive PROSPECTUS AND CATALOGUE has been printed and will be sent gratis to any gentleman who will transmit to the proprietor his address (post paid) for that purpose.

BULBOUS ROOTS.

HYACINTHS, Tulips and a general assortment of Bulbous Roots, suitable for the present season, for sale low at this establishment by
Oct. 28. I. I. HITCHCOCK.